

ENTOMOLOGICAL NEWS

VOL. LXXI

JUNE, 1960

No. 6

A New Subgenus and Species of *Callophrys* (s.l.) from the Southwestern United States (Lepidoptera: Lycaenidae)

By PAUL R. EHRLICH, Natural History Museum, Stanford University, Stanford, California, and HARRY K. CLENCH, Carnegie Museum, Pittsburgh 13, Penna.

Through the kindness of Mr. Noel McFarland, of the University of Kansas, we were permitted to examine a remarkable, but unfortunately unique, specimen of a hairstreak that he had taken in the Sandia Mts. of New Mexico in the spring of 1958. Although it is risky to draw conclusions from single specimens we had little doubt that this specimen represented a new and strikingly distinct species. It was, of course, evident that additional material was urgently needed.

Acting on this, the following spring P. R. E. joined forces with Mr. Don B. Stallings and Mr. J. R. Turner and their families to make a frontal attack on the locality. Its success was a collector's dream: not only was a good series netted, but the larval food plant was discovered and a good series of larvae in various stages of development was also obtained. Some of these were preserved and some left alive to continue growth, which they readily did, yielding pupae and a further series of adults later.

Mr. McFarland returned again to the Sandias, in time to secure additional material, confirming the presence of a second brood and at the same time discovering additional colonies of the species in the area.

Unfortunately, the forthcoming appearance of a new book ("How to Know the Butterflies") by one of us (P. R. E.) has

forced us to present this rather abbreviated description now, to make the name available for inclusion there. We intend to follow the present paper with a more detailed and extended treatment of the species, its variation and affinities. A separate account, by Stallings, Turner and Ehrlich, will cover the life history in detail.

Genus **CALLOPHRYS** Billberg 1820

Subgenus **Sandia** Clench and Ehrlich, new subgenus

Type species: *Callophrys* (*Sandia*) *mcfarlandi* Ehrlich and Clench, n. sp.

Shown to be a member of the genus *Callophrys* by the following characters: eyes moderately hairy; mid and hind tibiae each with a single pair of spurs. Male genitalia: penis with two terminal, terminally dentate cornuti, at least one upcurved; tip of penis flared, ventral margin projecting farther than dorsal, lacking a midventral distal serrate keel; valvae contiguous, or nearly so, to tips, the tips without setae.

Within the genus it is uniquely characterized by the following combination of traits: upperside gray brown and fulvous, without blue; male scent pad about three times as long as wide, with definitely dentate androconia; hind wing without tails; underside green with brassy fulvous underscaling, pattern elements largely suppressed save for a well developed, evenly curved postmedian (pm) line on both wings and variable traces of subterminal elements on the hind wing. Palpi about 1.9 to 2.3 times as long as vertical diameter of eye; endodont of tarsal claw present, short and bluntly rounded; basitarsus inflated. Male genitalia with saccus rather short and blunt; cornuti slender; penis comparatively short (2.3 times as long as valva); tips of valvae "capped" (i.e., with a small, sharply delimited, terminal thickening on each).

Within the genus the long palpi are unique (in all others it ranges from 1.1 to 1.5, rarely 1.6, times as long as vertical eye diameter); the capped valvae are shared only with *Callophrys* (*Mitoura*) *xami* and *C. (Incisalia)*; and the distinctly dentate

androconia only with *xami*, though this character is rather variable and therefore of only limited use. Absence of tails is characteristic of *C. (Callophrys)* and *C. (Incisalia)*; the dominant, simply curved pm line below typical of *C. (Callophrys)*. The green color below is shared with *C. (Callophrys)* and many *C. (Mitoura)* as well, while the brassy fulvous on both surfaces is similar to that in *xami* and several other *C. (Mitoura)*.

***Callophrys (Sandia) mcfarlandi* Ehrlich and Clench, n. sp.**

Male. Upperside. Fore wing gray with fulvous tint, darkening towards costa and apex to gray brown; veins gray; termen narrowly dark brown; scent pad about as long as width of cell, about three times as long as wide, dull black; fringe pale gray, darkening costad and darker basad throughout. Hind wing yellow fulvous, brightest tornally, gradually becoming grayer costad and basad; a narrow black terminal band from Rs to tornus; inner margin gray beyond 2A; fringe pale gray, darker distally, becoming almost black tornally; at Cu₁ and Cu₂ a few long, pure white scales cut the fringe and project very slightly beyond. Termen regularly rounded.

Underside. Fore wing golden fulvous with bright brassy green largely filling discal cell, tinging the fulvous slightly along costa and filling most of the space between the pm line and termen above Cu₁; base of cell Cu₂ gray; inner margin below 2A slightly brassy pale gray; a pm line, very regular and parallel to termen from costa to Cu₂, about as far from termen as distal width of cell Cu₁; this line composed of a distal pure white band, a central black line (about half as thick as the white) and traces of a basal orange fulvous edging; termen narrowly edged black, within which are a few white scales occasionally in cells Cu₁, Cu₂; fringe as on upperside. Hind wing largely green, basally with black scales intermixed, especially prominent in older specimens; pm line similarly regular and close to termen (about twice the distal breadth of cell Cu₁) and parallel to termen throughout except costally, where it approaches termen, intersecting it at end of Sc. Structure of this line as on fore wing but all parts a little thicker, the basal fulvous becoming a

definite orange fulvous band; in cells Cu_1 , Cu_2 and 2A the line is feebly crenulate, the segments concave outward; a pure white band, as thick as the white of pm line, follows termen from Sc (where it unites with pm white) to tornus, slightly toothed basad at each vein; immediately distad a slender black line follows termen similarly; between the two white lines the green darkens slightly distad by admixture of black scales between veins, and in median and cubital interspaces, almost touching pm line, a few white scales, followed distally by obsolescent black bars, very thin and faint, often absent, beyond which the green may occasionally be yellowed in faint lunule-shaped caps to the darker green beyond: these white scales, black bars and yellowish lunules being the sole remnants of subterminal markings, always faint, and often nearly absent; apparently better developed in second brood specimens. Fringe as on upperside.

Female. Upperside. Fore wing as in male with these exceptions: fulvous much more extensive, leaving dark brown areas only in cell, narrowly along costa and termen, thicker at apex; scent pad of course absent; fringe nearly pure white distally. Hind wing likewise brighter, more orange, basal darkening more basally restricted; termen nearly straight between M_1 and Cu_1 , then at Cu_1 abruptly angled, straight thence to tornus. Fringe purer white, but similarly darkened distally.

Underside as in male, but usually between Rs and inner margin with the series of black bars, basally white-edged, running very close to pm line, more prominent than in males.

Length of fore wing: holotype, male, 15 mm. (expanse 29.5 mm.); allotype, female, 14 mm. (expanse 28 mm.).

Holotype, male, La Cueva Canyon, 6300 ft., west slope of Sandia Mts., Bernalillo Co., NEW MEXICO, 31.v.1959 (Noel McFarland, *leg.*).

Allotype, female, same locality, ex larva on *Nolina microcarpa* taken 19.v.1959, emerged 7.vi.1959 (Stallings, Turner & Ehrlich, *leg.*).

Paratypes, as follows: 1 male, 4.v.1958 (N. M., *leg.*, the first specimen taken of the species); 2 males, 9 females, 18.v.1959 (S., T., & E., *leg.*), one of the females preserved in fluid; 3

males, 9 females, 19.v.1959 (S., T., & E., *leg.*) ; 1 male, 1 female, ex larvae coll. 18-19.v.1959 (S., T., & E., *leg.*) emerged 6.vi.1959; 2 males, 5 females, ex larvae coll. 19.v.1959 (S., T., & E., *leg.*), emerged 7.vi.1959; 17 males, 2 females, 31.v.1959 (N. M., *leg.*) ; 3 females, ex larvae coll. 18-19.v.1959 (S., T., & E., *leg.*), emerged 8.vi.1959: all the preceding from the same locality as holotype. In addition there are paratypes from Tijeras, Hwy 66, Sandia Mts., Bernalillo Co., all N. McFarland, *leg.*, as follows: 3 males, 31.v.1959; 1 male, 7 females, 1.vi.1959.

Holotype and allotype are deposited in the American Museum of Natural History. Paratypes will be variously distributed, including deposition in the following collections: Noel McFarland, Stallings-Turner, British Museum, Carnegie Museum, Los Angeles Co. Museum.

Remarks. The life history will be described and discussed in detail in a future publication (see introduction). We may summarize it briefly as follows: The foodplant is beargrass (*Nolina microcarpa* S. Watson), a local plant that occurs from the panhandle of Oklahoma westward to Arizona and south into northern Mexico. The larvae feed on the flower heads, where they may be found by careful search. There are apparently two closely spaced generations a year, the first from about the first of May to the third week or so of the same month; the second from about the end of May into June. The species overwinters as a pupa.

It is a remarkable coincidence that two specimens, a male and a female, were taken some 300 miles away in western Texas by J. M. and S. N. Burns, while on a collecting trip for *Erynnis* (Hesperiidae). Both were taken in the Davis Mts., Jeff Davis Co., Texas, as follows: 1 male, Limpia Canyon, 5000 ft., 4 mi. WNW of Ft. Davis, 28.iv.1959; 1 female, HO Canyon, 6000 ft., 29.iv.1959.

It is a pleasure to name this new species for Mr. Noel McFarland, who collected the first specimen and who materially aided in collecting the type series.

Some Robber-Fly Records (Diptera: Asilidae)¹

By ROBERT E. WOODRUFF, Department of Entomology,
State Plant Board of Florida, Gainesville, Florida

Diogmites missouriensis Bromley

In July, 1953, the writer was stationed at Fort Knox, Kentucky, for training with the U. S. Army Reserves. On several occasions a robber-fly of the genus *Diogmites* was noted flying about the tents and frequently alighting on the tent pegs. Although little time was available for collecting specimens, on July 30, 1953, seven specimens of this species were secured without the aid of a net. Apparently the species was just emerging as evidenced by a teneral specimen and the extremely slow flight of all individuals.

The specimens were tentatively identified by Robert M. Goslin, of the Ohio State Museum, as *Diogmites missouriensis* Bromley. Since this species was known to be quite rare, the specimens were sent to the late Dr. Stanley W. Bromley, who verified this identification. This constitutes the first record of the species for Kentucky and nearly doubles the number of previously known specimens. This insect is now known from four states in the Mississippi Valley. Other records which have been added through the courtesy of Robert M. Goslin, increase the total number of known specimens to twenty-two.

The following records summarize the known distribution of this rare species. The type series contained eight specimens from Missouri, two from Ohio, and one from Mississippi. In addition to the above specimens from Fort Knox, Kentucky, the Ohio State University collection contains one from the same locality, collected by R. D. Alexander. Other records are: one specimen from Jackson County, Ohio, and one from Ross County, Ohio, both collected in July, 1952, William Goslin; and one specimen from Highland County, Ohio, July, 1953, R. M. Goslin.

¹ Contribution No. 3, Entomology Department, State Plant Board of Florida.

Heteropogon macerinus Walker

On September 3, 1956, the writer and Richard D. Alexander camped at the end of an abandoned dirt road near Rocky Mount, Virginia. While walking along this road in search of tiger beetles, the writer noted a pale-colored robber fly sitting in the dry, hard-packed wheel ruts of the road. The specimen did not move, and on closer examination, proved to be teneral. A cast pupal skin was found only a few inches away and, on further search, seven more specimens were found near their pupal skins in the same type of situation.

The most surprising part of this collection is the fact that our car had been driven over the exact same spot the previous night. I immediately wondered how these delicate teneral insects could withstand such pressure. However, on second thought, I came to the conclusion that the pressure from the weight of the car probably loosened the otherwise hard soil and assisted the imagoes in emergence. All specimens were found directly in the ruts made by automobile tires.

Laphria index McAtee

This species is reported by Bromley (1931) as rare in Ohio and, therefore, the following collection is thought worthy of note: one male, Champaign County, Ohio, July 7, 1950, R. E. Woodruff.

Laphria ithypyga McAtee

Bromley (1947: 67-68) records this species from only one locality in Ohio. The writer collected a single specimen on June 15, 1951, in Champaign County, Ohio, to add another record.

Holcocephala fusca Bromley

Although this species does not seem to be rare (at least in Ohio), there has been little information published, regarding distribution, since the original description. Numerous specimens were collected by the writer in Champaign County, Ohio,

in August, 1952, and a single specimen was found at Indian Lake, Logan County, Ohio, August 18, 1951.

All of the above mentioned specimens are presently located in the Ohio State Museum, Columbus 10, Ohio.

REFERENCES

- BROMLEY, STANLEY W. 1931. Sci. Bull. Ohio State Museum 1(2): 1-19, 4 pls.
— 1947. Ohio Journal of Science 47(2): 67.
— 1950. Ohio Journal of Science 50(5): 229-230.
— 1951. Amer. Mus. Nov. 1532: 1-36, 2 pls.

Nomenclature Notice

All comments relating to the following should be marked with the Commission's File Number and sent in duplicate, as soon as possible, and in any case, before October 8th, to W. E. CHINA, Assistant Secretary, International Commission on Zoological Nomenclature, c/o British Museum (Natural History), Cromwell Road, London, S. W. 7, England.

Validation of the generic name **Delphax** Fabricius, 1798 (Order Hemiptera). Z.N. (S)47.

Designation of a type-species for the nominal genus **Macropsis** Lewis, 1843 (Order Hemiptera). Z.N. (S)456.

Suppression of the generic name **Promecopsis** Duméril, 1806 (Order Hemiptera). Z.N. (S)483.

Suppression of the specific name **longicorne** Latreille, 1804 (*Acrydium*) (Order Orthoptera). Z.N. (S)675.

Stabilization of the names of the North European species of **Tipula oleracea** group (Order Diptera). Z.N. (S)896.

Validation of the familiar usage of the generic name **Tanytarsus** van der Wulp, 1874 (Order Diptera). Z.N. (S)1245.

Designation of a neotype for the nominal species **Dytiscus cinereus** Linnaeus, 1758 (Order Coleoptera). Z.N. (S)1389.

Validation of the generic name **Acilius** Leach, 1817 (Order Coleoptera). Z.N. (S)1391.

Validation of the specific name **dardanus** Brown, 1776 (*Papilio*) (Order Lepidoptera). Z.N. (S)1403.

For details see Bull. Zool. Nomencl. Vol. 17, Parts 6/8.